

8/191/60/000/003/004/013  
B016/B054

AUTHORS: Itenberg, Sh. M., Luk'yanova, Ye. I., Novak, Ye. F.

TITLE: Factors Affecting the Properties of Aminoplast

PERIODICAL: Plasticheskiye massy, 1960, No. 3, pp. 16 - 19

TEXT: The authors report on studies of the factors influencing the properties of aminoplast. 1) Quality of formalin. They found that among the characteristics of formalin (methanol content conforming with GOCT (GOST)). Acidity is the only factor that influences the quality of aminoplast. It must not exceed 0.07 g/100 ml to produce a workable aminoplast. 2) A biuret content in urea between 0.1 and 1.0% has no effect on the quality of aminoplast. 3) The content of ammonium sulfate, however, must not exceed 0.02%. 4) It is noted that it is not always possible to produce molding powders with the same properties from celluloses with very similar pH values of the aqueous extract. The properties of aminoplast are greatly dependent on the content of mineral substances in the cellulose, especially of water-soluble calcium compounds. An increased ash content in the cellulose has a similar effect

Card 1/2

Factors Affecting the Properties of  
Aminoplast

S/191/60/000/003/004/013  
B016/B054

on aminoplast as a reduction of the amount of oxalic acid. The authors mention a method developed by A. A. Vansheydt and Z. K. Naumova for the large-scale production of aminoplast by Soviet industry. There are 7 tables and 4 references: 3 Soviet and 1 Italian.

Card 2/2

ITENBERG, S.H. M.

87137  
5/19/60/000/010/013/017  
3004/3060

15 8/09

**AUTHORS:**

Moskin, P. A., Rubtsov, I. K., Zhilina, R. D.,  
Itenberg, S. H. M.

**TITLE:**

Alcoholysis of Some  $\beta$ - $\beta'$ -Cyanethyl Esters, and  
Investigation of Products Obtained

**PERIODICAL:** Plastikobshchiye massy, 1960, No. 10, pp. 60-61

**TEXT:** Proceeding from acrylonitrile the authors synthesized the following compounds: di-( $\beta$ -cyanethyl)-sulfide, di-( $\beta$ -cyanethyl) ether, furtharone,  $\beta$ - $\beta'$ -cyanethyl ethers of ethylene, diethyl ether, ethylene glycol and butanediol. By alcoholysis by means of 2-ethylhexanediol one obtains the 2-ethyl hexyl esters of oxadipropionic acid, 2,4-dioxahexane dicarboxylic acid-1,6, 2,6-dioxahexane dicarboxylic acid-1,8, 2,4,6-trioxahexane dicarboxylic acid-1,10, and thiodipropionic acid. [Abstracters' Note: the conditions under which the alcoholysis was performed are not indicated]. These esters were found to be resistant to frost down to -45 - -50°C (determination by L. I. Burinova), and yielded, when mixed

Card 1/2

Alcoholysis of Some  $\beta$ - $\beta'$ -Cyanethyl Esters,  
and Investigation of Products Obtained

87137  
5/19/60/000/010/013/017  
3004/3060

with polyvinyl chloride resin in a ratio 1 : 1, plastics which satisfied the technological requirements. There are 3 tables and 4 references; 5 Soviet and 1 US.

Card 2/2

KAMNEVA, A. I.; FIOSHIN, M. Ya.; KAZAKOVA, L. I.; ITENBERG, Sh. M.

Electrochemical synthesis of dicarboxylic acids. *Neftekhimia*  
2 no.4:550-556 J1-Ag '62. (MIRA 15:10)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D. I.  
Mendeleeva.

(Acids, Organic) (Electrochemistry)

FICSHIN, M.Ya.; KAMNEVA, A.I.; ITENBERG, Sh.M.; KAZAKOVA, L.I.;  
YERSHOV, Yu.A.

Synthesis of dimethyl ester of sebacic acid by the method  
of anodic condensation. Khim. prom. no.4:263-266 Ap '63.  
(MIRA 16:8)

NAKROKHIN, B.G.; SHIBANOV, G.V.; GINEVICH, G.I.; OBRAZTSOV, A.I.;  
MATROS, Yu.Sh.; SKUE, G.I.; NAKROKHIN, V.B.; ITENEERG, Sh.M.;  
RASHRAGOVICH, Kh.D.

Oxidation of methanol to formaldehyde on oxide catalysts.  
Khim. prom. 41 no.2:17-19 F '65. (MIRA 18:4)

L 07397-67

ACC NR: AP6018904

(N)

SOURCE CODE: UR/0375/66/000/002/0065/0067

AUTHOR: Itenberg, S. I. (Candidate of technical sciences); Goncharov, I. I.  
(Engineer; Commander)

ORG: none

TITLE: Effect of drift on the work of hydrodynamic logs

SOURCE: Morskoy sbornik, no. 2, 1966, 65-67

TOPIC TAGS: ship navigation, hydrodynamic bearing, error correction

ABSTRACT: In this article the authors derive a formula for calculating the correction for the hydrodynamic error of a nautical log in the presence of drift:

$$\Delta l_{\alpha} = \Delta l + K_{\alpha} \quad (1)$$

where  $\Delta l$  is the log correction determined during its calibration in the absence of drift;  $K$  is a constant coefficient equal to the change of the log correction by one degree of drift; and  $\alpha$  is the angle of drift. The formula for calculating the true distance covered by a ship from the log readings when sailing with drift can be derived from Eq. (1). It has the form

$$S = S_1 \left( K_1 + \frac{K}{100} \alpha \right) \quad (2)$$

Card 1/2

28  
27  
B

L 07397-67

ACC NR: AP6018904

where  $K_1$  is the coefficient of the log ( $K_1 = 1 + \frac{1}{100}$ ). It is pointed out in conclusion that the complexity and awkwardness of the method does not permit the authors to recommend it to navigators for use in practical work. At present, prior to developing a simpler method, the coefficient K can be determined only on one ship of a given design and then it can be used on all ships. Orig. art. has: 3 formulas and 3 figures.

SUB CODE: 13,17/ SUBM DATE: none

Card 2/2 *fw*

ITENBERG, S. S. Cand. Geolog-Mineralog Sci.

Dissertation: "Geological Interpretation of the Corings of the Yelshano-Kurdyum Gas Deposit." Moscow Order of the Labor Red Banner Petroleum Inst. imeni Academician I. M. Gubkin, 10 Jun 47.

SO: Vechernyaya Moskva, Jun 1947 (Project #17836)

ITENBERG, S.S.

ITENBERG, S.S.; SMIRNOVA, M.H.

Geophysical study of Maikop deposits in wells. Trudy Groz. neft.  
inst. no.11:3-11 '53. (MIRA 8:6)  
(Oil well logging) (Geology, Stratigraphic)

ITENBERG, S.S.

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7, p 20 (USSR) 15-1957-8987

AUTHOR: Itenberg, S. S., Taranenko, Ye. I.

TITLE: Maykopskiy Deposits of the Trans-Terek Plain (Maykopskiye otlozheniya Zatrechnoy ravniny)

PERIODICAL: Novosti neft. tekhn. Geologiya, 1956, Nr 3, pp 10-14

ABSTRACT: The Maykopskiy section of the trans-Terek plain consists of alternating clays and siltstones (app. 1200 m). On the basis of electric logs, these rocks are divided into seven units, each having distinctive electrical properties and corresponding in microfauna content to definite zones which conform with the systems of A. K. Bogdanovich or of N. A. Khutseva. A comparison of the unit boundaries in drill holes has permitted the author to determine a systematic increase both in the thickness of the Maikopian rocks and in the number of siltstone layers in an easterly

Card 1/2

Maykopskiy Deposits of the Trans-Terek Plain (Cont.) 15-1957-7-8987

and northeasterly direction, due to a great downwarping in this part of the region and to increased nearness to the source of clastic supply. The great mobility of the eastern and northeastern part of the trans-Terek plain led to the displacement of bedding planes of the Maykopskiy rocks, to their overlap by younger deposits, and to the formation of flexures which produced gently inclined structures of the platform type.

Card 2/2

N. N. Barkhatova

ITENBERG, Semen Semuilovich; VYBORNYKH, S.P., redaktor; PERSHINA, Ye.G.,  
vedushchiy redaktor; POLOSINA, A.S., tekhnicheskii redaktor

[Geophysics in the petroleum industry for geologists; interpretation  
of the results of industrial geophysical studies] Neftepromyslovaia  
geofizika dlia geologov; interpretatsiia resul'tatov promyslovykh  
geofizicheskikh issledovani. Izd. 2-oe, perer. i dop. Moskva, Gos.  
nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1957. 397 p.  
(Prospecting--Geophysical methods) (MLBA 10:4)  
(Oil well logging)

ITENBERG, S.S.  
ITENBERG, S.S.

Unification of the stratigraphic borders of the Maykop series in  
the Terek plain. Geol. nefti 2 no.1:46-53 Ja '58. (MIRA 11:1)

1. Groznenskiy neftyanoy institut.  
(Terek Valley--Geology, Stratigraphic)

ITENBERG, S.S.; SHURMAN, G.A.

Working up data of lateral logging in low-resistance strata  
of central Caspasia. Razved.i prom.geofiz. no.29:73-77  
'59. (MIRA 13:1)  
(Russia, Southern--Oil well logging, Electric)

ITENBERG, S.S.; SMIRNOA, M.N.

Tectonics of the Chernyye Gory monocline in the belt of Maikop  
sediments. Trudy GNI no.21:111-119 '59. (MIRA 14:5)  
(Chernyye Gory--Geology, Structural)

ITENBERG, S.S.

Geoelectric characteristics of Jurassic sediments in the eastern  
anticline zone of southern Daghestan. Trudy GNI no.21:127-137 '59.  
(Daghestan--Terrestrial electricity) (MIRA 14:5)

ITENBERG, S.S.

Using gamma-ray logging data for the solution of certain geological problems. Sov. geol. 3 no.3:106-112 M<sup>r</sup> '60. (MIRA 13:11)

1. Groznenskiy neftyanoy institut.  
(Caucasus, Northern--Oil well logging, Radiation)

ITENBERG, S.S.; YEPIFANOV, Yu.G.

Possibility of evaluating the reservoir properties and determining the gas saturation of silt layers of the Khadum horizon of the Bezopasnenskoye gas field in central Ciscaucasia. Izv. vys. ucheb. zav.; nef't' i gaz 3 no.4:15-22 '60. (MIRA 15:6)

1. Groznenskiy nef'tyanoy institut.  
(Caucasia, Northern—Gas, Natural—Geology)

ITENBERG, S.S.

Using field geophysical data for the unification of stratigraphic sections. Geol. nefti i gaza 4 no.2:37-41 F '60. (MIRA 13:10)

1. Groznenskiy neftyanoy institut.  
(Geology, Stratigraphic)

ITENBERG, S. S., YEPIANOV, Yu.G.

Determining physical parameters of petroleum-bearing rocks from  
geophysical data. Prikl. geofiz. no.26:246-252 '60.

(MIRA 13:8)

(Prospecting—Geophysical methods)  
(Petroleum engineering)

ITENBERG, S. S.

Unification of stratigraphic boundaries of Eocene deposits in  
central and eastern Ciscaucasia based on geological and geophysical  
data. Prikl. geofiz. no.26:230-245 '60. (MIRA 13:8)  
(Caucasus, Northern—Geology, Stratigraphic)

ITENBERG, Semen Samuilovich; KUZ'MINA, N.N., ved. red.; POLOSINA, A.S.,  
tekhn. red.

[Field geophysics] Promyslovaia geofizika. Moskva, Gos.  
nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 388 p.  
(MIRA 15:1)

(Oil well logging)

ITENBERG, S.S.; SHNURMAN, G.A.; YEPIFANOV, Yu.G.; DAKHKIL'GOV, T.D.

Determining the actual thicknesses of the sandy silt reservoir  
rocks of the Lower Cretaceous sediments of the Kuma region.  
Neftegaz.geol. i geofiz. no.2:20-23 '64. (MIRA 17:4)

1. Groznenskiy nauchno-issledovatel'skiy neftyanoy institut.

ITENBERG, S.S.

Underwater breaks and recessive sediments in the Eocene of the  
Prikumsk region in eastern Ciscaucasia. Dokl. AN SSSR 155 no.6:  
1325-1328 Ap '64. (MIRA 17:4)

1. Groznenskiy neftyanoy institut. Predstavleno akademikom  
D.V.Nalivkinym.

ITENBERG, S.S.

Division of the cross section and the unification of stratigraphic boundaries of the Upper Paleogene and Lower Miocene sediments in central and eastern Ciscaucasia. Sov. geol. 7 no.9:104-120 S '64.  
(MIRA 17:10)

1. Groznenskiy neftyanoy institut.

ITENBERG, S.S.; YEPIFANOV, Yu.G.; DAKHKIL'GOV, T.D.; SHNURMAN, G.A.

Evaluating the porosity of Lower-Cretaceous sandy argillaceous rocks  
of the Kuma Plain according to self-potential data. Izv. vys. ucheb.  
zav.; neft' i gaz. 8 no.5:3-7 '65. (MIRA 18:7)

1. Groznenskiy neftyanoy institut.

RUMANIA/Optics - Physical Optics.

K.

Abs Jour : Ref Zhur - Fizika, No 7, 1959, 16472

Author : Golovcenco, I., Gherasinescu, E., Iticovici, A.

Inst : -

Title : Investigation of the Depolarization of Light by Organic  
Dyes

Orig Pub : An stiint. Univ. Iasi. Sec. I., 1957, 3, No 1-2, 275-280

Abstract : The Umov effect was investigated for various organic  
dyes. It is shown that films dyed with organic substan-  
ces depolarize selectively the transmitted light.

Card 1/1

ITICOVICI, I.

Sica, G. Standardization, important lever to reduce prime cost. p. 1.

Standards to determine and establish basic characteristics for the use of products. p. 3.

Some problems connected with standardization activities of ministries and central state organizations in 1954. p. 7.

STANDARDIZAREA, Bucuresti, Vol. 7, no. 4, Apr. 1955.

SO: Monthly List of East European Accessions, (MEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

ITICOVICI, I.

Cost reduction in industrial production. Problems econ 14 no.6:18-33  
Je '61.

ITICOVICI, I.

Application of the law of value in socialist economy.  
Probleme econ 15 no.3:47-61 Mr '62.

ITICOVICI, I.

Saving reserves of material resources. Problema econ 16  
no.10:29-42 0 '63.

ITICOVICI, I.

In connection with the use of economic fulcrums for  
strengthening the cost accounting in enterprises.  
Probleme econ 16 no. 5: 3-15 My '63.

ITICOVICI, M.; BRAUNER, E.; FLISS, A.; CUCIUREANU, G.; NICOLAE, G.;  
MORUZI, H.

Two cases of anthrax infection with pharyngeal localization.  
Rev. igiena microb. epidem., Bucur. No.2:60-63 Apr-June 54.

(ANTHRAX  
pharyngeal, case reports)  
(PHARYNX, dis.  
anthrax, case reports)

COSTINESCU, N., prof.; POPOVICI, Octavia, dr.; ITRACI, M., dr.; DINU, C.,  
dr.; ARMEANU, V., dr.

Management of the lymph-node areas in cancer of the larynx.  
Otorinolaringologie (Bucur.) 9 no.4:297-302 (1965)

1. Lucrare efectuata in Clinica de otorinolaringologie, Iasi.

*Iticovici, M.*

RUMANIA/Nuclear Physics - Instruments and Installations. Methods of C-2  
Measurement and Investigation.

Abs Jour : Ref Zhur - Fizika, No 2, 1958, No 2759

Author : Onu Const, Iticovici, M.

Inst : Not Given

Title : Manufacture of a Portable Apparatus for the Measurement of  
Radioactivity with Two Geiger-Mueller Counters

Orig Pub : Studii si cercetari stiint. Acad. RPR. Fil. Insi, 1955, 6,  
No 3-4, 19-26

Abstract : No abstract

Card : 1/1

ITICOVICI M  
Rumania/Nuclear Physics } Instruments and Installations. Methods of  
Measurement and Investigation

C-2

Abst Journal : Referat Zhur - Fizika, No 12, 1956, 33848

Author : Onu, Const., Iticovici, M.

Institution : None

Title : Realization of a Portable Instrument with 2 Geiger-Mueller  
Counters for the Study of Cosmic Radiation

Original  
Periodical : Studii si cercetari stiint. Acad. RPR. Fil. Iasi, 1956, 6,  
Nos 3-4, 19-26 (Rumanian; resumes in Russian and French)

Abstract : Description of a portable instrument with 2 Geiger-Mueller counters  
for use in the study of radioactive and cosmic radiation. The in-  
strument can operate with 2 counters connected for coincidence, to  
determine the direction of radiation, or else with a counter that  
can operate either with a mechanical counter, or else with a mea-  
suring instrument, which gives deflections proportional to the num-  
ber of pulses per minute. The setup consists of 3 battery tubes  
for 1.5 v each. The high voltage to feed the Geiger-Mueller counter

Card 1/2

Rumania/Nuclear Physics - Instruments and Installations. Methods of  
Measurement and Investigation

C-2

Abst Journal : Referat Zhur - Fizika, No 12, 1956, 33848

and also the supply to the vacuum tube is obtained by converting  
the voltage from a source of 2.5 v at 0.25 amp. The source con-  
sists of 2 dry cells or of 2 small alkali storage batteries. The  
apparatus weighs approximately 10 kg.

Card 2/2

~~ITICOVICI, MARCEL~~

~~ITICOVICI~~

~~MARCEL~~

RUMANIA/Nuclear Physics - Installations and Instruments. Methods of Measurement and Research C-2

Abs Jour : Ref Zhur - Fizika, No 5, 1958, No 10052

Author : Onu Constantiu, Iticovici Marcel

Inst : Not Given

Title : Vacuum Tube Electrometer for the Measurement of very Small Ionizations

Orig Pub : Studii si cercetari stiint. Acad. RPR Fil. Iasi. Fiz., si stiinte techn., 1956, 7, No 2, 5-9

Abstract : No abstract

Card : 1/1

ITICOVICI, M.

The Geiger-Muller portable detector without battery. p.201

STUDII SI CERCEIARI STINTIFICE. FIZICA SI STINTE TEHNICE.  
Iasi, Rumania, Vol. 8, no. 2, 1957

Monthly list of European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959

Uncl.

S/193/60/000/010/005/015  
A004/A001

AUTHOR: Itin, A. M.

TITLE: Model 1283 Eight-Spindle Semi-Automatic Lathe

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No.10, pp.21-22

TEXT: In 1959 the Plant "Krasnyy proletariy" im. A. I. Yefremov manufactured the first lot of the new model 1283 vertical eight-spindle chuck-type automatic lathe of successive action designated for the rough and finish machining of components up to 400 mm in diameter made of ferrous metals and modern light alloys in large-scale production. The speed of each individual spindle can be adjusted independently from the others over the whole speed range. Carriage travel has been increased by 150 mm. Workpieces of complex configuration can be machined and complex operation cycles effected with the aid of punched cards. The carriage feed can be changed during the cutting operations by 2.5 times, which makes it possible efficiently to machine components with varying tolerances at constant cutting rates. The carriages travel on cemented and hardened steel bedways instead of green cast iron ones, which increases the lathe life considerably. The components being machined are clamped hydraulically. The following

Card 1/2

Model 1283 Eight-Spindle Semi-Automatic Lathe

S/193/60/000/010/005/015  
A004/A001

technical data are given: number of positions - 8; operating positions - 7;  
spindle speeds - 50 - 800 rpm; carriage travel - 350 mm; carriage feeds - 0.03-  
3.5 mm/revolution; power of main drive - 100 kw; machine size - 3,350 (length) x  
3,380 (width) x 3,917 (height) mm; weight - 19.5 tons, which is lighter by 8.5  
tons than the American "Bullard" model. The lathe can be incorporated in  
automatic lines. There is 1 figure.

Card 2/2

ITIN, A.M.

Selecting speeds for fast displacements in machine tools.

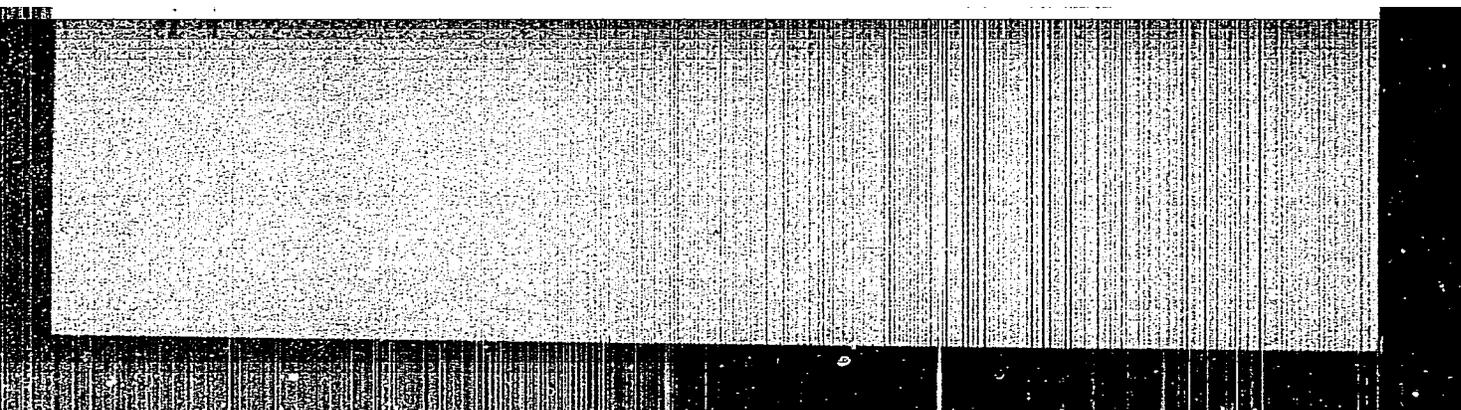
Stan. 1 instr. 32 no.4:13-16 Ap '61.

(MIRA 14:3)

(Machine tools)

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000618920005-0



APPROVED FOR RELEASE: 08/10/2001

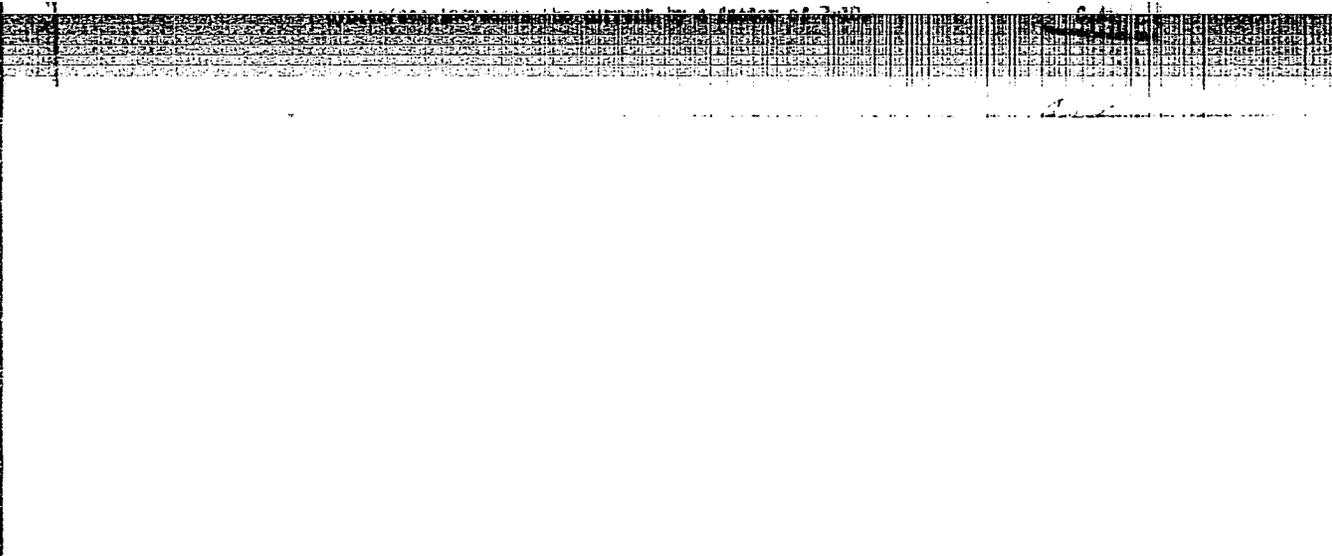
CIA-RDP86-00513R000618920005-0"

ITIN, A.V.

*Summary* EXPERIMENTAL INVESTIGATION OF THE IGNITION OF MIXTURES BY SPARKS  
The experimental investigation was carried out at various pressures (0.1-1.0 atm) and temperatures (20-100°C) of the mixture. The ignition characteristics were studied experimentally in order to determine the dependence of the ignition current on different values of voltage and for different frequencies (100, 400, and 1000 cycles/sec). It was established that the ignition current increases with an increase in the pressure from 10 to 100, 1000 cycles/sec increases the current by a factor of 7-10.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000618920005-0



APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000618920005-0"

8(2)

SOV/112-59-5-8905

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 5, p 69 (USSR)

AUTHOR: Itin, A. V.

TITLE: Sparkproofness Curves for Higher Frequencies

PERIODICAL: Izv. Dnepropetr. gorn. in-ta, 1958, Vol 28, pp 22-30

ABSTRACT: Experimentally determined curves of igniting current  $I_v$  plotted against voltage  $U$  for frequencies 40, 1,000, and 100,000 cps and the curves of  $I_v$  plotted against the frequency with  $U = \text{const}$  are presented. Curves of no-spark current plotted against the supply-circuit voltage at 2,500 cps and 100,000 cps are constructed. It is recommended that these curves be used in designing mine-type sparkproof electrical equipment of higher frequencies.

V.V.M.

Card 1/1

PIROTSKIY, P.P.; BUN'KO, V.A.; ITIN, A.V.

Contactless mine locomotive using increased frequency alternating  
current. Izv. DGI 28:133-142 '58. (MIRA 11:10)  
(Mine railroads) (Electricity in mining)

ITIN, A.V., dotsent, kand.tekhn.nauk

Danger factor in methane-air mixture inflammation by electric  
sparks. Izv. DGI 31:219-229 '58. (MIRA 11:7)  
(Mine fires) (Firedamp) (Electricity in mining)

VOLOTKOVSKIY, S.A., doktor tekhn. nauk; BUN'KO, V.A., kand. tekhn. nauk; ITIN, A.V., kand. tekhn. nauk

Localizing the action of an electric arc between a current-receiving device and a contact wire in an explosion-hazardous mixture. Vop. rud. transp. no.5:337-344 '61.

(MIRA 16:7)

(Electricity in mining—Safety measures)

BUN'KO, Viktor Aleksandrovich, kand.tekhn.nauk, dotsent; ITIN, Aleksandr  
Veniaminovich, kand.tekhn.nauk, dotsent

Use of contactless electric locomotives with increased frequency  
in mines subject to gas and dust explosions. Izv. vys. ucheb. zav.;  
elektromekh. 5 no.12:1398-1407 '62. (MIRA 16:6)

1. Kafedra gornoy elektrotekhniki Dnepropetrovskogo gornogo  
instituta.

(Mine locomotives)

(Electricity in mining--Safety measures)

ITIN, A.Ye.

Method of using soap naphtha as a plasticizer in mason's mortars.  
Rats. i izobr.predl. v stroi. no.70:16-17 '53. (MLRA 7:10)  
(Masonry) (Mortar)

ITIN, A. *Y*einzh.

Lever press for testing strength of bricks. Na stroi. Mosk. 2  
no. 6:24 Je '59. (MIRA 12:8)  
(Testing-machines) (Bricks)

ITIN, Lev Iosifovich (Mos Economics Inst) for Professor in the chair of  
"Economics of Industry." (BMVISSO USSR, 1-61, 23)

-138-

ITIN. L. I.

1241. Voprosy ekonomiki legkoy promyshlennosti. (otrasli kozhev-obuvnoy prom-sti). M.,  
1954. 47s. 21sm. (M-vo Vyssh. obrazovaniya SSSR. Mosk. gos. ekon. in-t). 110 ekz.  
B. ts. (54-52154)

SO: Knizhnaya Letopis, Vol. 1, 1955

ITIN, Lev Iosifovich; PISKUNOV, V., redaktor; KHOLOD, S., redaktor; MUKHIN,  
Yu., Tekhnicheskii redaktor

[Ways of improving the use of the productive capacity of industrial enterprises] Puti uluchsheniia ispol'zovaniia proizvodstvennykh moshchnostei promyshlennykh predpriatii. Moskva, Gos.izd-vo polit. lit-ry, 1956. 71 p. (MIRA 9:4)  
(Efficiency, Industrial)

ITIN, L.I.

Socialization and cooperation of the leather and footwear industries.  
Leg.prom. [16] no.11:4-7 N '56. (MLRA 10:1)  
(Leather industry) (Shoe industry)

itin, Lev Iosifovich

H/S  
729.0  
.18

Ekonomika legkoy promyshlennosti (otrasli kozhevenno-obuvnoy promyshlennosti) (Economics of light industry; shoe and leather branch) Moskva, Gizlegprom, 1957.

451 p. tables.

Bibliographical footnotes.

ITIN, I.; KAMENITSER, S.

New types of industrial management and some problems in the  
operation of plants. Vop.ekon. no.5:29-37 My '57. (MLRA 10:7)  
(Russia--Industries)

BERRI, L.Ya., doktor ekon. nauk, prof.; MARSHINOV, I.S.; BERGINSKIY, B.I., kand. ekon. nauk, dots.; GERASHCHENKO, B.S., kand. ekon. nauk; GRIGOR'YEV, A.Ye., doktor ekon. nauk, prof.; ITIN, L.I., doktor ekon. nauk, prof.; LOKSHIN, E.Yu., doktor ekon. nauk, prof.; KAMENITSER, S.Ye., doktor ekon. nauk, prof.; OBLOMSKIY, Ya.A., kand. ekon. nauk, dots.; SOKOLOV, B.M., doktor ekon.nauk, prof.; SHASS, M.Ye., doktor ekon.nauk; STEPANOV, A.Ya.; ULITSKIY, L.I., doktor ekon. nauk, prof.; PODGORNOVA, V., red.; TROYANOVSKAYA, N., tekhn. red.

[Economics of socialist industry; textbook]Ekonomika sotsialisticheskoi promyshlennosti; uchebnik. Pod red. L.I.Itina, B.S.Gerashchenko. 2., dop. i perer. izd. Moskva, Gospolitizdat, 1961. 775 p. (MIRA 15:10)

1. Moscow. Gosudarstvennyy ekonomicheskiy institut. 2. Zaveduyushchiy kafedroy ekonomiki promyshlennosti Moskovskogo gosudarstvennogo ekonomicheskogo instituta (for Itin). (Russia--Industries)

ITIN, L.I.

New textbook on the economic geography of the U.S.S.R. for higher schools of economics ("Distribution of branches of the national economy of the U.S.S.R." Reviewed by L.Itin). Izv.AN SSSR,Ser. geog. no.3:133-136 My-Je '61. (MIRA 14:5)  
(Economic geography)

BIRMAN, A.M.; GAYDUKOV, Yu.A.; GOLUBTSOV, L.B.; ITIN, L.I.;  
KAMENITSER, S.Ye.; MIRONOV, I.N.; TOLSTYKH A.S.; SHIMANSKIY,  
V.P.; SHUVALOV, N.M.; AVETISYAN, Ye., red.; MUKHIN, Yu.,  
tekh. red.

[School of socialist management; book for reading in schools  
for workers studying the economics of industrial enterprises]  
Shkola sotsialisticheskogo khoziaistvovaniia; kniga dlia  
chteniia v shkolakh rabochikh izuchaiushchikh ekonomiku pro-  
myshlennykh predpriatii. Moskva, Gospolitizdat, 1962. 295 p.

(MIRA 15:9)

(Industrial management)

ITIN, L.I., prof., doktor ekonom.nauk; CHERNYAVSKIY, V.O.; RADCHENKO, I.A.;  
LIVSHITS, S.A.

"Metal turnover in the national economy of the U.S.S.R." by L.L. Zusman. Reviewed by L.I. Itin and others. Stal' 22 no.10: 950-953 0'62. (MIRA 15:10)

1. Moskovskiy institut narodnogo khozyaystva im. G.V.Plekhanova (for Itin). 2. Gosudarstvennyy nauchno-ekonomicheskiy sovet Soveta Ministrov SSSR (for Chernyavskiy). 3. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy po proizvodstvu stali (for Radchenko, Livshits). (Zusman, L.L.) (Metals)

GORNOSTAY-POL'SKIY, A.M., kand. ekon. nauk, dots.; ITIN, L.I.,  
doktor ekon. nauk, prof.; PLEMYANNIKOV, M.N., red.;  
PYATNITSKIY, V.N., tekhn. red.

[Economics of light industry] Ekonomika legkoi promyshlennosti.  
Moskva, Gizlegprom, 1963. 483 p. (MIRA 17:1)

BERRI, L.Ya., doktor ekon. nauk, prof.; MAKSIMOV, I.S.; BRAGINSKIY, B.I., doktor ekon. nauk; GRIGOR'YEV, A.Ye., doktor ekon. nauk, prof.; ITIN, L.I., doktor ekon. nauk, prof.; LOKSHIN, E.Yu., prof.; KAMENITSER, S.Ye., doktor ekon. nauk, prof.; OBLOMSKIY, Ya.A., kand. ekon. nauk, dots.; SHASS, M.Ye., doktor ekon.nauk, prof.; STEPANOV, A.Ya.; ULITSKIY, L.I., prof., doktor ekon. nauk; PODGORNOVA, V., red.; TROYANOVSKAYA, N., tekhn. red.

[Economics of socialist industry] Ekonomika sotsialisticheskoi promyshlennosti; uchebnik. 3., dop. i perer. 1sd. Pod red.L.I. Itina. Moskva, Gospolitizdat, 1963. 646 p. (MIRA 16:8)

1. Moscow. Gosudarstvennyy ekonomicheskii institut. 2. Zavedu-yushchiy kafedroy ekonomiki promyshlennosti Moskovskogo instituta narodnogo khozyaystva im.G.V.Plekhanova (for Itin).  
(Russia--Industry)

ITIN, L. I.

"The concentration of production and the size of industrial plants."

report to be submitted for the United Nations Conference on the  
Application of Science and Technology for the Benefit of the Less  
Developed Areas - Geneva, Switzerland, 4-20 Feb 63.

GLAGOLEVA, L.A., kand. tekhn. nauk; RAKHLIN, I.V., kand. ekon. nauk; LOSEV, B.I., doktor tekhn.nauk, retsenzent; ITIN, L.I., doktor ekon. nauk, red.

[Economic efficiency of using plastics in machinery manufacturing] Ekonomicheskaja effektivnost' primeneniia plastmass v mashinostroenii. Moskva, Izd-vo "Mashinostroenie," 1964. 167 p. (MIRA 17:5)

BIKMAN, A.M.; GERSHKOVICH, I.I.; GOLUBTSOV, L.B.; ITIN, L.I.;  
KAMENITSER, S.Ye.; KONTOROVICH, V.G.; MOROZCV, P.A.;  
TOLSTYKH, A.S.; SHIMANSKIY, V.P.; SHUVALOV, N.M.;  
AVETISYAN, Ye., red.

[School of socialist management; a school reader for workers  
studying the economics of industrial enterprises] Shkola  
sotsialisticheskogo khoziaistvovaniia; kniga dlia chteniia v  
shkolakh rabochikh, izuchaiushchikh ekonomiku promyshlennykh  
predpriatii. Izd.2., perer.i dop. Moskva, Politizdat,  
1964. 318 p. (MIRA 17:8)

PROBST, Abram Yefimovich; ALAMPIYEV, P.M., retsenzent; ITIN, L.I.,  
retsenzent; SHISHANKOV, V., red.; BESSUDNOVA, N., mlad. red.

[Efficiency of territorial production organization; method-  
ological studies] Effektivnost' territorial'noi organizatsii  
proizvodstva metodologicheskie ocherki. Moskva, Mysl',  
1965. 206 p. (MIRA 18:4)

ITIN, L.M., inzh.; ZHURENKOVA, N.P., inzh.; KRIVITSKIY, Z.M., inzh.

Use of clay mixers for the preparation of pulp at a keramzit  
plant. Stroi. mat. no.11:12-14 N '65. (MIRA 18:12)

ИИЛ, К. А.

5830. Planirovaniye roznichnogo tovaroborota i tovarnykh fondov. Voschiye dlya rabotnikov obl. i krayev. torrotdelov. M., Gostergiziat. 1954. 164s. 22ss. (Nauch.-issled. in-t togovli i obshchestv. pitaniya N-Va togovli SSSR). 11.500 ekz. 5r. 50k (55-1484) p 581. (47) 4658.8: 658.51

SO: Knizhnaya, Letopis, Vol. 1, 1955

ITIN, Mordukh Afroimovich

[Planning for retail trade and stock] Planirovanie roznichnogo  
tovaroborota i tovarnykh fondov. Moskva, Gosplanizdat 1959.  
153 p. (MIRA 13:6)

(Retail trade)

POTEKHIN, L.; ROZHENFEL'D, I.; ITIN, N.; SOKOL'SKIY, N.; KUDRYASHOV, R., re-  
daktor; FILIPPOVA, E., Pechet'nik; DEBISOVA, O., tekhnicheskiy re-  
daktor

[Planning expenditures for maintaining educational and public  
health institutes] Planirovanie rashodov na sodershanie uch-  
rezhdenii prosveshchenia i sdavookhraneniia. Moskva, Gos-  
finizdat, 1955. 215 p. (MLBA 9:2)  
(Education--Finance) (Public health--Finance)

L 01931-67 EWT(m)/T WE

ACC NR: AR6023334

SOURCE CODE: UR/0273/66/000/003/0033/0033

AUTHOR: Itinskaya, N. I. ; Kul'chev, M. A.

TITLE: The effect of a fuel additive to the fresh air intake on the actual characteristics of a diesel engine

51  
B

SOURCE: Ref. zh. Dvigateli vnutrennego sgoraniya, Abs. 3. 39, 217

REF SOURCE: Dokl. Mosk. in-ta inzh. s. -kh. proiz-va. v. 2, no. 2, 1965, 45-53

TOPIC TAGS: diesel engine, fuel additive, internal combustion engine; paraffin hydrocarbon, hydrocarbon fuel additive

ABSTRACT: The addition of a fuel additive into the fresh air intake of a diesel engine improves the combustion of the basic fuel. Various additives lower smoke formation by 44—62%. The per unit consumption of fuel is decreased by 5—8%. The average power increase (without increase in smoke) is 20.5%. The optimum performance of the engine is attained by introducing fuel additives with considerable amounts of paraffin hydrocarbons. The use of additives at the intake makes possible the use in diesel engines of fuel with a low cetane number. [Translation of abstract]

[FM]

Card 1/1 <sup>hs</sup> SUB CODE: 21/

UDC: 621.436.001.5

POTEKHIN, Leonid Valer'yevich; ROZENFEL'D, Iosif Borisovich; ITIN, Naum Yefimovich; KUDRYASHOV, R., red.; SHATROVA, T., red. izd-va; TELEGINA, T., tekhn. red.

[Planning expenditures for social and cultural measures]  
Planirovanie raskhodov na setsial'no-kul'turnye meropri-  
iatia. Moskva, Gosfinizdat, 1962. 286 p. (MIRA 15:11)  
(Education—Finance) (Public health—Finance)

KORSUNSKIY, M.I.; ITIN, S.G.

Amercury compression manometer. Zav.lab. 21 no.4:501-502 '55  
(MLRA 8:6)

1. Khar'kovskiy politekhnicheskiy institut.  
(Manometer)

ACCESSION NR: AP4036566

S/0139/64/000/002/0110/0115

AUTHORS: Savitskiy, A. P.; Itin, V. I.; Zhdanova, V. N.; Koslov, Yu. I.

TITLE: On problem of excess vacancy sources formed during sintering of metallic powders

SOURCE: IVUZ. Fizika, no. 2, 1964, 110-115

TOPIC TAGS: metallic powder, sintering, cake porosity, initial porosity

ABSTRACT: An experimental investigation was made to verify theoretical conclusions on the influence of the heating rate in metallic powder sintering. Copper powder ( $50\mu$  size) of galvanic origin was used to prepare 15- to 20-mm cylindrical specimens (7 mm in diameter) in a double-sided press. The sintering was carried out in  $5 \times 10^{-3}$  Hg vacuum at a temperature of 900C for one hour. One set of specimens was heated at an average rate of 1.5 degrees per minute and the other at 200 degrees per minute. A graph (depicting final cake porosity versus initial porosity for both heating rates) and 170-magnification photographs of the pore sizes in the two specimens show that for small initial porosity under elevated pressures the use of slow heating rates to sintering temperatures gives rise to a

Card

1/2

ACCESSION NR: AP4036566

smaller expansion in the cakes than fast heating rates. Similarly, high heating rates generate larger pore sizes than slow heating rates. The results confirm the authors' predictions of diffusion mechanisms governing sintering porosity in crystalline materials. Orig. art. has: 3 formulas and 2 figures.

ASSOCIATION: Sibirskiy fiziko-tehnicheskii institut pri Tomskom gosuniversitete imeni V. V. Kuybysheva (Siberian Physicotechnical Institute at Tomsk State University)

SUBMITTED: 01Mar63

DATE ACQ: 05Jun64

ENCL: 00

SUB CODE: MM

NO REF SOV: 012

OTHER: 003

Card 2/2

L 6748-65 EWT(m)/EWP(q)/EWP(b) IJP(c)/BSD/ASD(m)-3 ID

50

ACCESSION NR: AP4043865

S/0139/64/000/004/0035/0040

AUTHORS: Savitskiy, A. P.; Itin, V. I.; Kozlov, Yu. I.; Zhdanova, V. N.; Kulikov, V. A.

TITLE: Resistance of metal-ceramic copper to compression at increased temperatures

SOURCE: IVUZ. Fizika, no. 4, 1964, 35-40

TOPIC TAGS: x ray diffraction study, metal ceramic material, ceramic sintering, ceramic thermal stability, ceramic pressing, compression resistance

ABSTRACT: To check on the influence of the manufacturing regime on the mechanical properties of metal-ceramic copper, the authors tested for compression, at 20, 350, and 500C, metal-ceramic copper obtained by triple pressing and sintering at different temperatures (250--1000C), with porosity 3--6%. The samples were made of elec-

Card 1/3

L 6748-65

ACCESSION NR: AP4043865

0

trolytic copper powder with particle size smaller than 50 microns, pressed at 1.5 ton/cm<sup>2</sup>, and sintered at 250, 400, 550, 700, 850, and 100C. The samples were pressed again after sintering at 5 tons/cm<sup>2</sup>, sintered again at the corresponding temperature, and again pressed at 5 tons/cm<sup>2</sup>. The results show that a metal-ceramic copper multiply pressed and sintered at low temperatures, has a higher resistance to compression at room temperature than metal subjected to high-temperature sintering, but is not as resistant to compression at high temperatures as is a ceramic prepared at high temperatures. The loss of strength is found to be due to partial annealing, as determined by the width of the (331) x-ray line of the sample. Measurements of the width of the x-ray line have established that recrystallization of the metal ceramic copper takes place during the sintering process in the temperature interval 300--350C. A hypothesis is advanced that the weakening of the metal-ceramic copper during compression at high temperatures is due to interaction between dislocations and vacancies, which enter the lattice upon dissolution of

Card 2/3

L 6748-65

ACCESSION NR: AP4043865

the small pores or because of the presence of a very highly developed boundary net. Orig. art. has: 6 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V. V. Kuybyshava (Siberian Physicotechnical Institute at the Tomsk State University)

SUBMITTED: 03Jan64

SUB CODE: MT, OP

NR REF SOV: 017

ENCL: 00

OTHER: 006

Card 3/3

L 11971-65

ENT(m)/EPR/ENP(k)/ENP(e)/ENP(t)/ENP(b)

Pf-4/Ps-4, SSD/AFETR/

ASD(m)-3/AFWL/ESD JD

ACCESSION NR: AP4047346

S/0139/64/000/005/0034/0037

AUTHORS: Savitskiy, A. P.; Kozlov, Yu. I.; Itin, V. I.; Savitskiy, K. V.; Zhdanova, V. N.

TITLE: Effect of porosity on the mechanical properties of metal-ceramic copper and a Cu-Al alloy

SOURCE: IVUZ. Fizika, no. 5, 1964, 34-37

TOPIC TAGS: copper alloy, copper, metal ceramic material, porosity, mechanical property, hardness, powder metallurgy

ABSTRACT: In view of the lack of experimental data on the effect of low porosity on the mechanical properties, the authors investigated the dependence of the hardness and resistance to compression of copper and of Cu-Al alloy, prepared by powder-metallurgy methods, on the porosity. The preparation of the metal-ceramic samples is the same as described by A. P. Savitskiy et al (Poroshkovaya metallurgiya

Card 1/2

L 11971-65

ACCESSION NR: AP4047346

[Powder Metallurgy], in press). The copper samples were sintered at 250, 400, 550, 700, and 850°, while the Cu-Al alloy (10 atomic percent) were sintered at 500° with subsequent hot pressing at the same temperature. The porosity ranged between 0.3 and 18%. The results indicate that although the mechanical properties of a material with low porosity can exceed the corresponding properties of the cast material, owing to certain features of the structure, the dependence of these properties on the porosity remains linear, as established in earlier research. Orig. art. has: 3 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskii institut pri Tomskom gosuniversitete im. V. V. Kuybyshva (Siberian Physicotechnical Institute at the Tomsk State University)

SUBMITTED: 26Feb64

ENCL: 00

SUB CODE: SS, MM

NR REF SOV: 008

OTHER: 004

Card 2/2

L 31856-65 EWP(e)/EWT(m)/EWA(d)/T/EWP(t)/EWP(r)/EWP(b) Pf-4 IJP(c) JD/1W

ACCESSION NR: AP5004272

8/0126/65/019/001/0117/0122

31  
32  
P.

AUTHOR: Savitskiy, K. V.; Itin, V. I.; Kozlov, Yu. I.; Kulikov, V. A.

TITLE: The effect of annealing on the properties of cold-worked Cu-Al alloys prepared by the sintering method

SOURCE: Fizika metallov i metallovedeniye, v. 19, no. 1, 1965, 117-122

TOPIC TAGS: annealing, cold working, aluminum bronze, powder metallurgy, powder bronze, cast bronze, solid solution, microsegregation, sintering, diffusion annealing, copper alloy

27  
ABSTRACT: A study has been made of the effect of annealing, following cold-working, on the mechanical properties of aluminum bronze prepared by the sintering method. The authors found that the presence of a solid solution with a changing concentration and a very fine grain in the mentioned alloy serves to improve the hardening effect during annealing. Inasmuch as a copper-aluminum alloy produced by the powder metallurgy method contains solid solution concentrations, even a small aluminum content will also enhance the hardening effect in the course of annealing. There is a basis for the belief that the production of powder bronze by the rolling method will considerably improve the mechanical properties of the

Card 1/2

L 31856-65

ACCESSION NR: AP5004272

alloy when hardened by annealing. The annealing of deformed alloys produced by the powder metallurgy method improves the hardening process in the case of small as well as large aluminum concentrations. This is due to the occurrence of micro-segregation and the formation of Suzuki atmospheres in the lattice defects. "The authors are sincerely grateful to V. Ye. Papin, Yu. I. Paskal' and Yu. I. Kogan for the discussion of a number of problems and for their valuable comments." Orig. art. has: 6 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskoy institut (Siberian physicochemical institute)

SUBMITTED: 01Nov63

ENCL: 00

SUB CODE: MM

NO REF SOV: 009

OTHER: 009

Card 2/2

L 39729-65 EWP(e)/EWT(m)/EWA(d)/EPR/EMP(t)/EWP(L)/EMP(z)/EMP(b) 21-4/Da-4  
ACCRSSION NR: AP5006195 IJP(c) JD S/0226/65/000/002/0078/0082 33

AUTHOR: Savitskiy, K. V.; Kulikov, V. A.; Itin, V. I.; Kozlov, Yu. I. 34  
Savitskiy, A. P. 36

TITLE: The effect of temperature on the mechanical properties of metal powder alloys of copper with aluminum

SOURCE: Poroshkovaya metallurgiya, no. 2, 1965, 78-82

TOPIC TAGS: aluminum alloy, metallurgical research, bronze, compression strength, annealing

ABSTRACT: Because of their excellent mechanical properties, aluminum bronzes are replacing the more expensive tin bronzes. However, the poor casting properties of aluminum bronzes impede their use somewhat. These difficulties may be overcome by substituting powder metallurgy for casting. The authors examine the properties of aluminum bronzes produced by this method. Metal powder alloys with 5, 10 and 15 at. % aluminum are studied. In preparing the alloys, copper and aluminum powders with particles smaller than 50  $\mu$  were mixed for 50-70 hours.

Card 1/3

L 39729-65

ACCESSION NR: AP5006195

Cylindrical specimens 7 mm in diameter and 14-15 mm high were pressed from this mixture at a pressure of  $50 \text{ KN/cm}^2$ . After preliminary annealing in a vacuum, the specimens were pressed for a second time at a pressure of  $130 \text{ KN/cm}^2$  and finally sintered in a vacuum of  $1.5 \cdot 10^{-3}$ . The intermediate annealing temperature for all materials was  $700^\circ\text{C}$ , the final sintering temperature: Cu-- $700^\circ$ , Cu + 5 at. % Al-- $850^\circ$ , Cu + 10 at. % Al  $850^\circ$ , Cu + 15% Al-- $950-1000^\circ$ . The sintered samples were cut off on a lathe to an identical height-- $11 \pm 0.02 \text{ mm}$  and then were annealed at a temperature of  $700^\circ$  for 1 hour to remove the cold hardening. These samples were compression tested on an R-5 machine in a temperature range from 20 to  $500^\circ\text{C}$ . It is found that Cu-Al alloys produced by the powder metallurgy method have a higher resistance to compression in the temperature range from 20/ to  $300^\circ\text{C}$  than the cast alloys of corresponding composition. This phenomenon is connected with the presence of oxides in alloys, the extremely fine grain and high inhomogeneity concentration. Homogenization of the powder metal bronzes leads to improvement of the mechanical properties of the alloys at high temperatures in comparison with the non-homogenized bronzes. Hardening of the Cu-Al powder metal alloys during annealing after cold deformation by compression has a number of special features in comparison with cast alloys, in particular such hardening is stable over a wider range of temperatures and is observed at lower

Card 2/3

L 39729-65

ACCESSION NR: AP5006195

aluminum concentrations. Orig. art. has: 5 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy nauchno-issledovatel'skiy institut  
(Siberian Physicotechnical Scientific Research Institute)

SUBMITTED: 13Jun63

ENCL: 00

SUB CODE: MM

NO REF SQV: 013

OTHER: 006

*ml*  
Card 3/3

L 2710-66 EWT(m)/EWP(e)/EWP(w)/T/EWP(k)/EWP(z)/EWP(b)/EWP(t) IJR(c) JD/EM

ACCESSION NR: AP50171B2

UR/0139/65/000/003/0124/0128

AUTHOR: Itin, V. I.; Savitskiy, A. P.; Kozlov, Yu. I., Savitskiy, K. V.

41  
39  
B

TITLE: Influence of the sintering temperature on the mechanical properties of Cu-Al alloy prepared by the method of multiple pressing and sintering

SOURCE: IVUZ. Fizika, no. 3, 1965, 124-128

TOPIC TAGS: copper alloy, aluminum containing alloy, powder metal compaction, powder metal sintering, temperature dependence

ABSTRACT: This is a continuation of earlier work by the authors (Izv. Vuzov SSSE, Fizika, No. 2, 139, 1965) and is aimed at eliminating the pores which appear in Cu-Al alloys sintered at temperatures above the eutectic melting point. To eliminate these defects the authors propose a two-step technology, wherein the pores are eliminated by a second pressing and sintering. The dependence of the hardness and resistance to compression of an alloy of copper with 10 at.% aluminum on the temperature of the sintering was measured at temperature 300, 400, 500, 600, 700, 900, and 1040C. The preparation of the samples and the test procedures are described. The maximum resistance to compression and maximum hardness was obtained at 500C, while best ductility was obtained at 600--700C. The results are analyzed from the point of view of formation of new phases of solid solutions at various

Card 1/2

L 2710-66

ACCESSION NR: AP5017182 22

temperatures. It is concluded that optimal mechanical properties are obtained by multiple pressing and sintering at 600--700C. The second pressing with subsequent sintering seals the pores and at the same time reduces the number of stress concentrators in the sintered alloy. Variation of the second-sintering temperature and of the pressure permits variation of the grain size and the degree of homogeneity, thus yielding alloys with prescribed properties. Orig. art. has: 5 figures.

ASSOCIATION: Sibirskiy fiziko-tekhicheskiy institut imeni V. D. Kuznetsova  
(Siberian Physicotechnical Institute)

SUBMITTED: 12Dec63

ENCL: 00

SUB CODE: MM

NR REF SOV: 005

OTHER: 001

*kc*  
Card 2/2

GRIGOR'YEVA, V.V.; SAVITSKIY, K.V.; ZHDANOVA, V.N.; KULIKOV, V.A.;  
SERGEYENKOVA, V.M.; SAVITSKIY, A.P.; ITIN, V.I.; KOZLOV, Yu.I.

Strain resistance and resistance to deformational distortions  
of ceramic metal alloys. Porosh. met. 5 no.9:81-90 S '65.  
(MIRA 18:9)

1. Institut problem materialovedeniya AN UkrSSR i Sibirskiy  
fiziko-tekhicheskiy institut imeni Kuznetsova.

ITIN, V.I.; SAVITSKIY, A.P.; SAVITSKIY, K.V.; KOZLOV, Yu.I.; KULIKOV, V.A.

Sintering of the metal ceramic alloy Cu - Al. Izv. vys. ucheb. zav.; fiz.  
8 no.2:139-144 '65. (MIRA 18:7)

1. Sibirskiy fiziko-tekhnicheskiy institut imeni Kusnetsova.

ITIN, V.I.; SAVITSKIY, A.P.; KOZLOV, Yu.I.; SAVITSKIY, K.V.

Effect of the temperature of sintering on the mechanical properties of the Cu-Al alloy prepared by the method of repeated pressing and caking. Izv. vys. ucheb. zav.; fiz. 8 no.3:124-128 '65. (MIRA 18:9)

1. Sibirskiy fiziko-tekhnicheskiy institut imeni V.D.Kuznetsova.

SAVITSKIY, K.V.; ITIN, V.I.; KOZLOV, Yu.I.; SAVITSKIY, A.P.

Effect of the dispersity of an aluminum powder on the sintering  
of the Cu-Al alloy in the presence of the liquid phase. Porosh.  
met. 5 no.11:19-25 N '65. (MIRA 18:12)

1. Sibirskiy fiziko-tekhnicheskii institut imeni V.D.Kuznetsova.  
Submitted February 13, 1965.



L 2099-66

ACCESSION NR: AP5022547

the compressive strength was higher in alloys containing  $\alpha$ - $\text{Al}_2\text{O}_3$  and slightly increased in all alloys as the  $\text{Al}_2\text{O}_3$  concentration increased. The size of  $\text{Al}_2\text{O}_3$  particles had practically no effect on the room-temperature compressive strength, but at 500C the compressive strength of alloys increased appreciably as the particle size of  $\text{Al}_2\text{O}_3$  decreased from 2 to 1  $\mu$ . The type of  $\text{Al}_2\text{O}_3$  modification had the most sharply pronounced effect on the compressive strength. For example, an alloy with 3%  $\alpha$ - $\text{Al}_2\text{O}_3$  had a compressive strength of about 65 and 36  $\text{dan/mm}^2$  at 20 and 500C, respectively, compared with 58 and 28  $\text{dan/mm}^2$ , respectively, for an alloy with 3%  $\gamma$ - $\text{Al}_2\text{O}_3$ . Low-temperature annealing (at up to 300-400C) produced an equally slight increase in the hardness of both nickel and Ni- $\text{Al}_2\text{O}_3$  alloys deformed 30% at 20C. Annealing at temperatures higher than 400C decreased the hardness of sintered nickel and all Ni- $\text{Al}_2\text{O}_3$  alloys. However, the hardness of cold-deformed Ni- $\text{Al}_2\text{O}_3$  alloys after high-temperature annealing remained higher than that of identically treated sintered nickel. The hardness level of Ni- $\text{Al}_2\text{O}_3$  alloys increased with higher content and fineness of  $\text{Al}_2\text{O}_3$  powder. The maximum softening of Ni and Ni- $\gamma$ - $\text{Al}_2\text{O}_3$  alloys occurred at the same temperature, while the temperature of maximum softening of Ni- $\alpha$ - $\text{Al}_2\text{O}_3$  alloys was about 100C higher. The higher temperature stability of the deformation-induced distortions and a higher compressive

Cont 2/3

L 2099-66

ACCESSION NR: AP5022547

6

strength at room and elevated temperatures favor the use of sintered Ni-a Al<sub>2</sub>O<sub>3</sub> alloys. Orig. art. has: 8 figures and 5 formulas. [MS]

ASSOCIATION: Institut problem materialovedeniya AN SSSR (Institute of Problems of the Science of Materials, AN USSR), Sibirskiy fiziko-tekhnicheskii institut im. V. D. Kuznetsova (Siberian Physicotechnical Institute)

SUBMITTED: 02Feb65

ENCL: 00

SUB CODE: NN

NO REF SOV: 006

ORIGIN: CIA

AND PAGES: 4/13

Card 3/3

E 31967-66 EWP(e)/EWT(m)/T/EWP(t)/ETI/EWP(k) LIP(c) JD/JH  
ACC NR: AP6017096 (N) SOURCE CODE: UR/0226/66/000/001/0005/0011

AUTHOR: Savitskiy, K. V.; Itin, V. I.; Kozlov, Yu. I

ORG: Siberian Physicotechnical Institute im. V. D. Kuznetsov (Sibirskiy fiziko-  
tehnicheskii institut)

TITLE: Investigation of the mechanism of sintering powder-metal alloys of copper  
and aluminum in the presence of the liquid phase

SOURCE: Poroshkovaya metallurgiya, no. 1, 1966, 5-11

TOPIC TAGS: sintering, sintering temperature, eutectic, aluminum alloy, aluminum  
powder, copper alloy, powder alloy, powder metal, powder metal sintering

ABSTRACT: Experimental data have shown that during sintering of a mixture of  
aluminum and copper powders in vacuum, at temperatures exceeding the eutectic, the  
samples tested increased in volume. This increase was in direct proportion to the  
concentration of aluminum in the alloy. The increase in volume of the sintered  
samples is attributed to the swelling of copper particles due to the diffusion of  
aluminum into them and formation of cavities in place of the aluminum particles.  
Orig. art. has: 5 figures. [AM]

SUB CODE: 11/ SUBM DATE: 08Apr65/ ORIG REF: 017/ OTH REF: 007

Card 1/1 LC

45  
B

I 46662-66 EWP(e)/EWI(m)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/WW/JG/JH

ACC NR: AP6009571 (N)

SOURCE CODE: UR/0226/65/000/011/0019/0025

AUTHOR: Savitskiy, K. V.; Itin, V. I.; Kozlov, Yu. I.; Savitskiy, A. P.

49  
B

ORG: Siberian Physico-Technical Institute im. V. D. Kuznetsov (Sibirskiy fiziko-tekhnicheskoy institut im. V. D. Kuznetsova)

TITLE: Effect of the dispersion of aluminum powder on the sintering of Cu-Al alloy in the presence of liquid phase

SOURCE: Poroshkovaya metallurgiya, no. 11, 1965, 19-25

TOPIC TAGS: powder metal sintering, aluminum, copper, powder alloy, particle size

ABSTRACT: The sintering of pressed shapes whose components can form eutectic alloys may, owing to contact pressure, involve formation of the liquid phase at temperatures markedly below the melting point of the readily fusible component. The formation of the liquid phase in Cu-Al alloys triggers two opposite processes: shrinkage or enlargement of the pressed briquet, either one of which prevails depending on pressing and sintering conditions, as well as on the particle size of aluminum powder. To further clarify these conditions, the authors investigated a powder-metal alloy of Cu with 10 at. % Al. The samples investigated contained Al powder in

Card 1/2

I. 46562-66

ACC NR: AP6009571

different particle sizes:  $<50 \mu$ ,  $63-100 \mu$ ,  $100-160 \mu$ ,  $250-315 \mu$ , and  $400-630 \mu$ , mixed with Cu powder (particle size  $<50 \mu$ ). These mixtures were pressed into cylindrical briquets which were then vacuum-sintered. After sintering the linear and volumetric shrinkage of the briquets was determined. Findings: samples sintered at above-eutectic temperatures ( $>548^\circ\text{C}$ ) undergo enlargement in volume; the extent of this enlargement is the greater the finer the particle size of Al is and the slower the rate at which the samples are heated to the temperature of isothermal exposure. The formation of the liquid phase, as established by radiographic and metallographic analyses, is the major factor in this process: the growth in the size of the sintered briquets is chiefly associated with the formation of an alloy of copper and aluminum owing to the preferential diffusion of Al atoms from the liquid to the solid phase. If the diffusion is not complete, the briquets may undergo shrinkage instead of expansion in volume. Smaller Al particles are more advantageous, since then the area of contact between Cu and Al particles in the briquets is greater and this contributes to a more complete diffusion from the liquid to the solid phase. Orig. art. has: 6 figures.

SUB CODE: 11, 20, 13/ SUBM DATE: 13Feb65/ ORIG REF: 007/ OTH REF: 003

Card

2/2 *egh*